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Author(s): George Rosen

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SOCIAL STRESS AND MENTAL DISEASE FROM THE EIGHTEENTH CENTURY TO THE PRESENT: SOME ORIGINS OF SOCIAL PSYCHIATRY[1]

GEORGE ROSEN, M.D., PH.D.[2]

INTRODUCTION

THERE is a widespread conviction today that a close interdependence exists between the social environment in which individuals live and the development of mental illness. The nature of this interplay is not yet fully explained, but it is felt that an important factor, possibly the most important single element leading to mental disorder is the failure of society to make adequate provision for conditions essential to the mental health of its members. By its failure to create and to maintain such conditions, society is responsible for stresses resulting from rapid social change or cultural lag which produce mental conflicts and breakdowns (1).

According to Rennie and Woodward, "mental health cannot be developed in a social vacuum. Powerful factors operate against it as our present society is constituted. . . . Mental health can only be achieved in an environment which provides opportunities for self-expression, social usefulness, and the attainment of human satisfactions." (2) From this position it is not far to the standpoint that individual breakdowns are actually indices of a sick society, that society is actually the patient. "There is a growing realization among thoughtful persons," wrote Lawrence K. Frank in 1936, "that our culture is sick, mentally disordered, and in need of treatment. . . . The disintegration of our traditional culture, with the decay of those ideas, concepts, and beliefs upon which our social and individual lives were organized, brings us face to face with the problem of treating society, since individual therapy or punishment

[1] A public lecture delivered July 8, 1958 at the Institute of Psychiatry (Maudsley Hospital), University of London.

[2] School of Public Health and Administrative Medicine, Columbia University.

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no longer has any value beyond mere alleviation of our symptoms." (3)

Confronted by this challenge, workers in the medical and social sciences have endeavored to get to the roots of this problem. If cultural processes and factors are in some way responsible for the occurrence of mental disease, it should be possible to demonstrate them by comparative examination of differing societies and cultural groups of varying complexity. Virtual absence of certain mental disorders in some preliterate groups has been reported by anthropologists, sociologists and psychiatrists. Moloney reported a strikingly low incidence of psychosis among native Okinawans, and attributed it to their mothering methods, especially breast-feeding. (4) A study of Okinawan immigrants to Hawaii, however, has shown they have a rate of psychosis significantly higher than other groups there, even though the same mothering methods are used. (5) What is different is that the Okinawan in Hawaii has to cope with a depreciated social situation; and the stress and trauma attendant upon this change have been incriminated as the responsible elements. Similar observations have been made by Carothers in Kenya (6), while additional reports bearing on this problem have come from Laubscher, Kardiner, and several others. (7) Related to such reports is the study of the Hutteries, an Anabaptist sect living in the northwestern United States and Canada, which was undertaken because "of their reputation of being virtually free of psychotic breakdowns and antisocial activities. . . ." (8) As it turned out, this belief did not hold up under closer scrutiny.

Another way of studying the relation of factors such as social change and cultural disintegration to mental illness is to study incidence trends, that is, to see whether there is an increase or decrease of various mental disorders over a period of time. A number of provocative and partly illuminating studies on this theme have recently appeared. Two of these are of interest as representing types of work in this field. In 1948, Halliday brought out his PSYCHOSOCIAL MEDICINE, which offers the

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thesis that cultural changes over the past seventy-five years have improved the physical health of the population, but have led to a deterioration of mental health as judged by the rising incidence of psychosomatic disorders. (9) Halliday advances the view that in the 1870's the physical atmosphere of infancy was poor, but psychologically it had much to commend it; the reverse is true today. Five years later, in 1953, Goldhamer and Marshall came to a contrary conclusion with regard to the psychoses. (10) Based on an analysis of admissions to Massachusetts institutions for the insane from 1840 to 1950, they concluded that there has been no long-term increase in the incidence of psychoses in early and middle life. Up to the age of fifty, the rates a hundred years ago and today are roughly the same. Whatever differences do exist, are due entirely to the large number of admissions today for psychoses of those over fifty. In short, there seems to be no reason to believe that there has been any great change in the conditions causing psychosis at least in the United States, for a period of a hundred years. Goldhamer and Marshall also suggest the possibility that psychosis is a condition, independent of environmental conditions, and due to some physiological or hereditary aberration.

The same year that saw the publication of the study by Goldhamer and Marshall also saw the appearance of a report by the Expert Committee on Mental Health of the World Health Organization. (11) According to this group "Certain workers who have attempted a study of this matter in economically underdeveloped countries have the strong impression that psychiatric disorders are much less prevalent in some of these areas. The view has been put forward, for instance, that incidence of psychiatric disorders in tribal Africans is one-tenth of that usually found in Western Europe and North America." At the same time, the report points out that other workers "hold the view that . . . psychiatric disorders have a rather constant frequency in all societies." (12)

The fact is that adequate data on which to form even a relatively valid judgment on these matters are not available in

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most parts of the world. Without a population census, the frequency of mental disorders cannot be determined. Studies of incidence and prevalence are difficult enough to carry out in countries like England or the United States where institutional facilities and trained personnel are available. Among primitive groups, accurately recorded observations and impressions are the most one can expect. Statistics in such studies must therefore be treated with great caution. Furthermore, judgments expressed and positions taken by various workers concerned with mental disease may themselves be determined by social values of which they may not even be aware. (13)

Nonetheless, one cannot overlook the fact that from the eighteenth century right down to the present day students of mental illness have been preoccupied with the problems sketched above. Two questions appear over and over in writings on the subject. One was "Is the number of the insane increasing?" And an answer to this question was at the same time also an answer to the question "Does civilization cause more mental illness than simpler stages of cultural development?" These questions imply a causal theory, namely, that social relationships and developments are deeply and significantly involved in the causal nexus which produces mental disease. Examination of this theory in historical perspective may therefore illuminate the current situation by enabling us to see its sources and how these may have determined our approach to the problem of mental illness and its causation.

Social Order and Mental Health

The Enlightenment and the French Revolution dominate the thought of the eighteenth century on the connections between social relationships, social change, and mental disorder. In the intellectual climate of the Enlightenment, Design, Nature, Natural Law, Reason, and Happiness were key ideas. It was accepted as a basic premise that the world had been established by the Creator according to a definite plan, within which there were ordered ways of behaving. These ordered ways were the

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laws of nature, which redounded to the glory of the Creator and the greater good of man. Indeed, the Creator had so designed the human body that it would flourish when it lived in harmony with its political and social environment, and conversely He had so framed the political order that human health was fostered by good social institutions. These views were sharply formulated and applied by Benjamin Rush, that remarkable exponent of the Enlightenment in America. In his "Inquiry into the Natural History of Medicine among the Indians of North America," which was read before the American Philosophical Society in 1774, Rush observed that disease, political institutions, and economic organization were so interrelated that any general social change produced accompanying changes in health. (14) Twenty-five years later, in 1799, Rush published THREE LECTURES ON ANIMAL LIFE in which he reiterated this view.

"In no part of the human species," he said, "is animal life in a more perfect state than in the inhabitants of Great Britain, and the United States of America. With all the natural stimuli that have been mentioned, they are constantly under the invigorating influence of liberty. There is an indissoluble union between moral, political, and physical happiness; and if it be true, that elective and representative governments are most favourable to individual as well as national prosperity, it follows of course, that they are most favourable to animal life. . . ." (15)

Rush applied this idea to a concrete case in his "Account of the Influence of the Military and Political Events of the American Revolution upon the Human Body." (16) Ostensibly this inquiry was intended to determine how conditions during the Revolution affected its friends or enemies. Actually, the findings were predetermined by Rush's conviction that individual and social health depended on correct political principles.

In general, good health fell to the lot of the revolutionists. "An uncommon cheerfulness prevailed everywhere among the friends of the Revolution. Defeats, and even the loss of relations

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and property, were soon forgotten in the great objects of the war." (17) More specifically, Rush observed among other findings that hysterical women who favored the Revolution were cured of their condition. Furthermore, "marriages were more fruitful than in former years and . . . a considerable number of unfruitful marriages became fruitful during the war." (18) Finally, many persons who had been sickly were restored to perfect health owing to change of occupation or location as a result of war conditions.

Sharply contrasted with the good health of the patriots was the mental and physical breakdown experienced by those Americans who remained loyal to England. In many instances, they tended to suffer from a hypochondriasis, which was popularly called the "protection fever" and which Rush termed *Revolutiana.* It was called "protection fever" because it appeared to rise from the excessive concern of the Loyalists for the protection of their persons and possessions. This basic cause was accentuated by such other factors as loss of power and influence, the suspension of the Established Church, changes in manners and diet as a result of inflation, and lastly the legal and extralegal oppression to which the Loyalists were subjected.

These effects upon the human body were produced through the medium of the mind. Thus, the patriots themselves were not necessarily immune to such conditions, and Rush observed that following the peace in 1783, the Americans, unprepared for their new situation, were affected by an excess of liberty.

"The excess of the passion for liberty," wrote Rush, "inflamed by the successful issue of the war, produced, in many people, opinions and conduct which could not be removed by reason nor restrained by government. For a while, they threatened to render abortive the goodness of heaven to the United States, in delivering them from the evils of slavery and war. The extensive influence which these opinions had upon the understandings, passion and morals of many of the citizens of the United States, constituted a species of insanity, which I shall take the liberty of distinguishing by the name of *Anarchia.*" (19)

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In short, proper political stimuli, and a stable and ordered society were required for health. Mental health implied a society which would provide the proper stimuli and necessary conditions for well-being, and this was to be found in an agricultural economy (20) such as existed in the young American Republic.

Revolution, War and Mental Illness

The views of Benjamin Rush are worthy of consideration for two reasons. For one thing, he called attention to the effects on mental health of acute social changes, and secondly he placed such phenomena in a theoretical context, derived partly from his medical, and partly from his social views. The impact of wars, revolutions, and similar phenomena as productive of mental illness is reported by other writers, some of whom cite Rush.

Pinel attributed to the French Revolution an increase in the number of persons affected by psychoses. Marc-Antoine Petit of Montpellier reviewed the effect of the Revolution on public health, and considered mental illness in this context. (21) While aware of the views of Rush, he is more circumspect in uncovering a causal connection between various morbid states and the social tensions and stresses created by the Revolution. Nonetheless, Petit likewise agreed that mental aberrations had apparently appeared in the wake of the revolutionary turmoil. The revolutions of 1848 in turn produced similar observations. Brierre de Boismont reported that immediately after the February events and the bloody June battles in Paris, a large number of patients were admitted to the two institutions for which he was responsible. (22) Similarly, Hospital, physician to the Asylum at Clermont-Ferrand, claimed in 1875 that the Franco-Prussian War and the civil war that followed it in 1871 increased the number of cases of psychosis in France. (23)

Another observation of this type was reported by Belgrave in 1867 from Denmark. "It appears," he said, "that the evident decadence of Danish power of late years has so afflicted the national sentiment as to induce a general gloom and melancholy.

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The traveller may walk through Copenhagen without meeting a smiling countenance. A conviction pervades the Danish nation that it is doomed to absorption by Germany; and this feeling has induced a settled melancholy, which the universal well-being of the people and the excellence of their government only contribute to make more conspicuous. In social intercourse the destiny of the nation is constantly discussed and lamented. One result of this painful feeling is an increase in the proportion of lunatics to the general population. The predominating form of mental disease is melancholia, characterized in the majority of instances by a distressingly strong tendency to suicide." (24)

The interest of this observation resides as well in the implication that the entire group is mentally ill, and that the psychotics are a product of a wide prevalent pathological condition. In turn, the conditions and the factors which lead to disease arise from or have been intensified by political developments, such as the decline of national power. Clearly, there is also an implication in Belgrave's observation that one approach to a possible understanding of the social etiology of mental disorders would be to consider the occurrence of psychoses in time and space. Actually, efforts of this type had already been undertaken earlier in the 19th century. One general line of development was the discussion of the connection between civilization and psychosis; the other was the endeavor to establish a theory of epidemic disease on a historical basis, which would also take account of psychic epidemics.

Psychic Epidemics and Historical Process

The latter position was most fully developed by Rudolf Virchow, in conjunction with his co-workers R. Leubuscher and S. Neumann. As an extension of his views on the relation of medicine to society, Virchow developed a theory of epidemic disease as a manifestation of social and cultural maladjustment. (25) Reasoning by analogy, he drew a parallel between the individual and the body politic: "If disease is an expression of individual life under unfavorable conditions then epidemics must

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be indicative of major disturbances of mass life." (26) The disturbances are socio-economic, for example, business depressions, unemployment, and the like. "Don't we see that epidemics everywhere point to deficiencies of society?" Virchow asked. "One may point to atmospheric conditions, general cosmic changes and the like, but in and of themselves these never cause epidemics. They always produce them only where, because of poor social circumstances, people have lived for a long time under abnormal conditions." (27) Virchow differentiated natural and artificial epidemics, basing the distinction on the degree to which cultural factors are interposed between nature and man.

Artificial epidemics he considered as attributes of society which occur not only as a result of social contradictions, but also as significant manifestations of historical trends and development. Nodal points in history, periods of political and intellectual revolution, are marked by such outbreaks of disease. "History has shown more than once," Virchow declared in August 1848, "how the fates of the greatest empires were decided by the health of their peoples or of their armies, and there is no longer any doubt that the history of epidemic disease must form an inseparable part of the cultural history of mankind. Epidemics correspond to large signs of warning which tell the true statesman that a disturbance has occurred in the development of his people which even a policy of unconcern can no longer overlook." (28) This train of thought was carried to its logical conclusion in 1849. "Epidemic diseases exhibiting an hitherto unknown character appear and disappear," Virchow asserted, "after new culture periods have begun, often without leaving a trace. As cases in point take leprosy and the English sweat. The history of artificial epidemics is therefore the history of disturbances which the civilization of mankind has experienced. Its changes show us with powerful strokes the turning points at which civilization moves off in new directions. Every true cultural revolution is followed by epidemics, because a large part of the people only gradually enter into the new cultural movement and begin to enjoy its blessings." (29)

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Within his socio-historical theory of epidemic disease, Virchow included the psychic epidemics, a phenomenon and a concept in which interest declined and almost disappeared during the later 19th century under the influence of bacteriology and biological determinism, but in which interest has again been aroused in the present century. (30) Virchow pointed out that "The artificial epidemics are physical or mental, for mental diseases also occur epidemically and tear entire peoples into a mad psychotic movement. Psychiatry alone enables the historian to survey and understand the major fluctuations of public opinion and popular feeling, which on the whole resemble the picture of individual mental illnesses." (30) While Virchow examined the relations of psychosis to contemporary emotional states, other physicians who shared his views to a greater or lesser degree investigated the same problem historically. Neumann refers approvingly to a work by Ideler on religious madness, and to Leubuscher's adaptation of Calmeil's study of psychosis over a period of four hundred years. "Both have demonstrated," he wrote, "how the various forms of lunacy are essentially determined by the contemporary state of civilization of a society." (31)

This discussion of psychic epidemics was stimulated by the appearance in Berlin at the time of a child who performed miracles. (32) It was alleged that this child could cure illness, and it was reported to have been visited by some 10,000 people daily among whom 3,000 to 4,000 "cures" were effected. Occurrences of this type are not uncommon in history in the wake of military defeats or as a reaction to suppressed revolutions. Similar phenomena can be observed in Germany after the First World War, in England under Cromwell's regime, or in Czarist Russia after the defeat of the 1905 Revolution. (33) Virchow explained this event as an abnormal expression of suppressed revolutionary energies that had not been discharged. His interpretation must be seen in terms of a concept of an "organic" historical process, clearly a concept with Hegelian overtones. Virchow tended in general to view the psychological reactions

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observed during and after the 1848 revolution as a psychic epidemic caused by interference with the historical process. (34)

Unfortunately, this theory of psychic epidemics and its implications have never been explored in any systematic fashion. In our own time a few authors, among them Hellpach, Scheunert and Sigerist, have touched several limited aspects of the problem. (35) There is no doubt that such studies are beset with great difficulties; nevertheless, a thorough systematic study would be fruitful for an understanding of mental disease in time.

Parenthetically, it is interesting and amusing to note at least one contemporary instance where an attempt was made to pin the label of mental disease on the 1848 democrats. The *Athenaeum* of March 23, 1850, carried the following note: "In Berlin, a curious subject for a thesis has been found by a student in medicine, the son of M. Groddeck, the deputy, seeking his degree. M. Groddeck has discovered a new form of epidemic, whose virus has of late circulated throughout the Continental Nations with a rapidity contrasting strongly with the solemn and stately march of cholera. Its development, indeed, has been all but simultaneous in the great European Capitals, but we know not that it has before occurred to anyone to treat it medically. M. Groddeck's thesis publicly maintained, is entitled 'De morbo democratico, nova insaniae forma' (On the democratic disease, a new form of insanity). The Faculty of Medicine, with the usual dislike of Faculties of Medicine to new discoveries, refused admission, it appears to this dissertation, but the Senate of the University, on M. Groddeck's appeal, reversed their decision." (36)

Madness and Civilization

The element of bias is only too obvious in the designation of democratic beliefs as a form of mental disease. This is not unlike the practice of designating as mad those who do not agree with one, or who say or advocate things that seem bizarre or obscure. This judgmental aspect, while perhaps not so evident,

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has also been present in the discussion of the relation between civilization and mental illness carried on for more than a century and a half. Despite such an element of bias, it has been the investigation of this problem which in a large sense has led to current studies on the epidemiology of mental disease, and the concern with social stress in the causation of such illness.

Broadly speaking mental illness emerged as a proper subject for objective medical investigation in the 18th century. As asylums were created and data collected on the patients in them, the question was raised: Is insanity on the increase? The problem derived from a number of sources. For one, there was the nature cult of the 18th century which viewed the present as a degenerate retrogression from a golden age of natural virtue. Any further development of civilization was found to increase manifestations of degeneracy. Then, this was also the period of the early Industrial Revolution with its attendant evidences of social maladjustment. The alleged increase in the incidence of insanity was viewed as another aspect of this situation, and physicians, philosophers, and others speculated on the question whether man would be able to adapt successfully to the increasing complexities of society. Current viewers with alarm and prophets of impending doom are simply the most recent in a long line. The literature on the question of mental illness and civilization is large, and it will not be possible to consider every writer on the subject. Several have been chosen for discussion to illustrate the main lines of development.

The situation in the early 19th century is well illustrated by two British authors, both of whom published works on mental illness in 1828. According to Sir Andrew Halliday, "The finer the organs of the mind have become by their greater development, or their better cultivation, if health is not made a part of the process, the more easily are they disordered. We seldom meet with insanity among the savage tribes of men; not one of our African travellers remark their having seen a single madman. Among the slaves in the West Indies it very rarely occurs; and, as we have elsewhere shown from actual returns, the con-

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tented peasantry of the Welsh mountains, the western Hebrides, and the wilds of Ireland are almost free from this complaint. It is by the over-exertion of the mind, in overworking its instruments so as to weaken them, while the healthy functions of the body are, by a kind of reaction, interfered with, that insanity may be said to take place in a great number of instances; while, in others, it is the over-exertion of the bodily powers, and the derangement of the vital functions, that re-act upon the brain, and derange its operations." (37)

A different view was taken by George Burrows, who accepted the social causation of mental disease. He pointed out that "many of the causes inducing intellectual derangement, and which are called moral, have their origin not in individual passions or feelings, but in the state of society at large; and the more artificial, i.e., civilized, society is, the more do these causes multiply and extensively operate. The vices of civilization, of course, most conduce to their increase; but even the moral virtues, religion, politics, nay philosophy itself, and all the best feelings of our nature, if too enthusiastically incited, class among the causes producing intellectual disorders. The circumstances influencing their occurrence are to be sought in all the various relations of life, in constitutional propensities, and, above all, perhaps in education." (38)

Among the social causes, he also calls special attention to situations of rapid change such as revolutions. "Insanity," said Burrows, "bears always a striking relation to public events. Great political or civil revolutions in states are always productive of great enthusiams in the people, and correspondent vicissitudes in their moral condition; and as all extremes in society are exciting causes, it will occur, that in proportion as the feelings are acted upon, so will insanity be more or less frequent." (39) In this connection he refers to Pinel, Halloran, and comments on the writings of Benjamin Rush.

Of considerable interest are his sharp remarks on the alleged absence of mental disease among uncivilized and primitive peoples. Repudiating this belief, he pointed out that the noble

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savage, who "no rule but uncorrupted reason knew," was actually no more than a fiction. Furthermore, the reason why mentally ill people were not found among primitive groups was that they were destroyed without hesitation. Men everywhere, Burrows concluded, were "liable, among other ills, to insanity." But he was also aware that the evidence on many of the points which he considered was too vague to afford any conclusion.

Not quite a decade later however, statistical data were becoming available, so that W. A. F. Browne, medical superintendent of the Montrose Asylum, was able to cite them in support of his belief that insanity was on the increase due to the development of mechanical civilization. (40) "By the calculations of Sir A. Halliday," he said, "which, although perhaps merely approximations to the truth, have the merit of being the only data we possess, it appears that the proportion of the insane to the sane population of Europe, is 1 to 1,000. In Wales, the proportion is 1 to 800, in Scotland 1 to 574. The Americans, so closely allied to us by descent, language, national character, and customs, it is computed by Dr. Brigham, present 1 lunatic in every 262 inhabitants. This disparity probably depends on the rapid acquisition of wealth, and the luxurious social habits to which the good fortune of our transatlantic brethren has exposed them. With luxury, indeed, insanity appears to keep equal pace. Nay the opinion has been hazarded, that as we recede, step by step, from the simple, that is savage manners of our ancestors, and advance in industry and knowledge and happiness, this malignant persecutor strides onward, signalizing every era in the social progress by an increase, a new hecatomb, of victims. . . . With civilization . . . come sudden and agitating changes and vicissitudes of fortune; vicious effeminacy of manners; complicated transactions; misdirected views of the objects of life; ambition, and hopes, and fears, which man in his primitive state does not and cannot know. But these neither constitute, nor are they necessarily connected with civilization. They are defects, obstacles which retard the advancement of that amelioration of condition towards which every discovery

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in arts, or ethics, must ultimately tend. To these defects, and not to the amount of improvement, or refinement of a people is insanity to be traced." (41)

The question may be raised then, does insanity increase in consequence? To this problem, Browne addressed himself pointing out that it is one of the most interesting questions to be decided by statistics. While he believed that mental illnesses had increased, Browne admitted that "more careful examination is, without doubt required to establish the proposition." (42) Furthermore, he considered the incidence and prevalence of insanity by social class (rich—poor) and by occupation. While he inclines to the view that the wealthy and better educated groups were more likely to have more mental illness, here too he had to admit that "We do not possess sufficient data to determine the relative proportions of the insane rich and the insane poor." (43) At the same time, Browne discussed the available statistical data, especially that of Esquirol, Georget, and other French psychiatrists. He raised questions concerning the validity of the data, the manner in which they were obtained and a number of other problems which still concern those who study the incidence and prevalence of mental disease. Finally, he dealt with the relation of political systems, social commotions, and the like to insanity. Observing that it was not the form of government which caused mental illness he went on to point out that it was rather "the mode in which it is administered, the social relations, the tranquility or the fluctuations in the habits, value of property and rank, the degree of prosperity, and the moral and religious condition which arise out of it, must obviously do so. In that state, then, be it monarchical or republican, in which the sources of moral agitation and excitement are most abundant, will the proportion of insanity be the highest." (44)

While the baneful effects of civilization were generally accepted on faith or supported by statistics of dubious validity, observations were recorded which tended to contradict this view. When P. L. Panum made his observations on measles

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during an epidemic in 1846, he also recorded some observations on the mental health of the population. "Since it has been proved," he wrote, "that the frequency of mental diseases is generally in direct proportion to civilization and its accompanying social collisions, it might be surmised that these diseases are extremely rare on the Faroes, inasmuch as civilization has certainly not attained a high degree there, and the social collisions so agitating to the mind, under the patriarchal conditions which prevail, are proportionately very few. But on the contrary, there is hardly any other country or indeed any metropolis, in which mental diseases are so frequent in proportion to the number of people as the Faroes." (45)

Despite such discrepant observations, however, the view persisted that insanity must be increasing because society was becoming more complex. Even where there was a clear awareness that the data necessary for a valid judgment were lacking, confirmation was sought by reasoning. Edward Jarvis, an American physician, who was very active in the reform of mental institutions as well as in related matters, wrote in 1851 that "it is impossible to demonstrate, whether lunacy is increasing, stationary, or diminishing, in proportion to the advancement of the population, for want of definite and reliable facts, to show, how many lunatics there are now, and still less to show, how many there have been at any previous period. Wanting these two facts, we cannot mathematically compare the numbers of insane or their proportions to the whole people at any two distinct periods of time, and thus determine whether lunacy increases or retrogrades." (46)

But since the facts were not available or adequate to answer the question, he turned to an examination of the causes of mental illness to see "whether the causes are more or less abundant, and act with more or less efficiency now than formerly, and are likely to produce more or less lunacy." (47) Since the causes derived from mental overexertion, insecurity, social maladjustments, and the like, Jarvis was able to support his belief. Thus, he concluded: "Insanity is then a part of the

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price we pay for civilization. The causes of the one increase with the developments and results of the other. This is not necessarily the case but it is so now. The increase of knowledge, the improvements in the arts, the multiplication of comforts, the amelioration of manners, the growth of refinement, and the elevation of morals, do not of themselves disturb men's cerebral organs and create mental disorder. But with them come more opportunities and rewards for great and excessive mental action, more uncertain and hazardous employments, and consequently more disappointments, more means and provocations for sensual indulgence, more dangers of accidents and injuries, more groundless hopes, and more painful struggle to obtain that which is beyond reach, or to effect that which is impossible.

"The deductions, then, drawn from the prevalence and effects of causes, corroborate the opinion of nearly all writers, whether founded on positive and known facts, on analogy, on computations or on conjecture, that insanity is an increasing disease. In this opinion all agree." (48)

Similar views are to be found in England, Germany, and other countries. For example, John Hawkes, assistant medical officer to the Wilts County Asylum wrote in 1857: "I doubt if ever the history of the world, or the experience of past ages, could show a larger amount of insanity than that of the present day. It seems, indeed, as if the world was moving at an advanced rate of speed proportionate to its approaching end; as though, in this rapid race of time, increasing with each revolving century, a higher pressure is engendered on the minds of men and with this; there appears a tendency among all classes constantly to demand higher standards of intellectual attainment, a faster speed of intellectual travelling, greater fancies, greater forces, larger means than are commensurate with health." (49) These in turn are linked to other causes such as ill health, financial embarrassments, over-anxiety, excessive application to business and the like, causes that are not restricted to the upper classes of society. Indeed, Hawkes

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stresses the need for a wider field of study which would embrace as well "the middle and the lower walks of life." (50)

This belief in the rising tide of madness is a theme that is played with numerous variations. In Germany, Wilhelm Griesinger asserted that different nations were variously predisposed to mental health. Yet, he too felt that overall mental illnesses had actually increased. Griesinger did not accept political influences as a cause of insanity, but considered them as a factor in providing the symptom content manifested by patients. But while he accepted the position that the advance of civilization had brought about an increase of insanity, he was equally a product of his time in his belief that this adverse result was balanced by progressive consequences of civilization. (51)

Ackerknecht has made the provocative suggestion that the belief in a progressive increase of insanity during the 19th century is an aspect of the belief in progress, that the belief was firmly held even when there was no firm basis in fact because the greater prevalence of mental illness was evidence of more advanced civilization, since civilization was considered a basic element in its causation. As Jarvis put it, insanity was the price paid for the high level of civilization attained by 19th century Western European culture as a consequence of the Industrial Revolution. In this sense, the problem of mental illness was no different than the contemporary problems of physical disease.

The consequences of this position were recognized by Hawkes when he proposed a preventive program for community mental health. Mental hospitals, though necessary, he pointed out, will not check the spread of mental disorders. To achieve this aim prevention is required. Just as "we appoint officers of public health," he continued, "whose business it is to hunt out fever and contagious maladies, the offspring of ignorance and neglect, and to trace them to their lair, and to strangle them at birth, . . . let us think . . . how the same principles of prevention may be applied to diseases of the mind." (52) Action toward this end must be organized on a community basis,

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making use of "resources among all classes of society." The basis of a preventive program must be a social structure devoid of stresses and maladjustments, in which all classes receive their proper due, and where it is recognized that the basis of society is "formed by the stout hearts and strong arms of the mass of labouring poor." (53) The consequences which follow from these premises provide the specifics of an action program. "Let us . . . endeavor to promote mental sanitary reform," Hawkes proposed, by "combining to introduce those changes in the social condition, more especially of the working classes, by which that high pressure system, so prejudicial to the health of the mind, shall be slackened, and the strain which it occasions relaxed. Let these people have those proper periods for repose and recreation, without which man becomes a mere machine. Let the hours of labour be abridged, and let childhood no longer share the curse of the fall. Let the multitudes who have not the means or opportunities of learning from books, be instructed by public teachers the first principles of mental as well as physical hygiene." (54)

Clearly, by the middle of the 19th century the problem of mental disease, in terms of incidence, prevalence, trend, causation, prevention, and community action, had been broached, and various aspects with which we are today concerned had been examined in some respects. Many of these questions clearly could not be settled due to inadequate knowledge and techniques. Yet the theories and points of view which were put forth are still with us, are still being discussed and examined. One widely accepted theory was that mental disorder was in some way related to social instability and maladjustment. Within this broad theoretical framework, attention was focused on the element of rapid social change as an important, possibly basic causal factor. In a period of rapid industrialization, this is hardly surprising. And while the alleged increase of insanity was considered an almost inevitable concomitant, there were voices raised to question whether the price was actually necessary or worthwhile. Finally, the problem of differen-

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tial social incidence and prevalence was formulated, and thought was given to ways of investigating it so as to throw light on the causation of mental disorder.

Considering whether or not insanity was on the increase, Edgar Sheppard, in 1873, wrote that "Apart from statistical evidence (which is often very untrustworthy), our inclination to one side or the other will be much coloured by the meaning which we attach to that conventional term 'civilization.' If it implies all that our optimists say it implies—the practice of all the virtues and a greater capacity for all that is good and noble —then you will be disposed to hold to the opinion that insanity *cannot* be on the increase. But there is another side to the picture. To me, . . . 'civilization' may but express wear and tear, and high pressure. And the product of these is deterioration of nerve-tissue, and general impairment of our material organizations . . . civilization is really a term singularly inexact and indefinite, and admitting of great latitude of interpretation. It involves an improvement, no doubt, of the social wheat; but there is to be considered also its inevitable correlative—a frightful multiplication of the social tares. If our schools and seminaries, and hospitals and churches have multiplied, so also have our casinos and gin-palaces, and betting-rings; the whole area of speculation is a hundred-fold enlarged; all the energies of life are multiplied and intensified; and men shriek at each other on the Stock Exchange who used to converse in quieter and less 'civilized' times." (55)

Sheppard then proceeded to discuss the problem of differential prevalence. "There has been a great difference of opinion," he wrote, "as to whether insanity is more frequent in the male or in the female, and the large aggregation of women in our different asylums has led to a belief that they are more obnoxious to mental alienation than ourselves. But a source of fallacy is obvious; *existing* cases do not represent *occurring* cases. Women do not die, and do not recover as we do; hence they accumulate. It is pretty certain that the *occurring* cases in the two sexes are about equal; perhaps an excess slightly

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obtains in the males. Insanity occurs more frequently between the ages of 30 and 40 than any other decade. It is more frequent in the summer than in the winter months, and among the agricultural than the town populations. Regarded superficially the latter circumstance is somewhat puzzling, and in contradiction to what one would naturally expect. The vices and wear and tear of great cities, with all the attendant evils of dense gregariousness, would seem to invite disease in a larger ratio than in the country." (56) Furthermore, he pointed out, the agricultural population was worse fed than the urban inhabitants, their occupation did not provide adequate intellectual stimulation, and that the children were starved and stunted. Consequently, they tended to suffer from dementia and imbecility. Here was a clear hint that an approach to a possible understanding of the relation of social factors to mental disorders would be to consider the distributions of various mental illnesses in time and space, and to see how they were connected with the characteristics of various population groups.

Studies of this kind began to make their appearance toward the end of the 19th century in the United States and in England. The transitional character of these analyses is evident in the review, in 1887, by Judson B. Andrews of the distribution of the insane in the United States. "In the northern belt," he said, "the New England states take the lead with one insane person to every 359 of the inhabitants. This decreases till we reach the newer States and Territories, with one insane person to every 1,263 inhabitants. . . .These figures emphasize the statement that the pioneers of our newer settlements are the more hardy and vigorous citizens, and that the feeble and dependent are left in their former homes, to enjoy the comforts of the hospitals and asylums, which are the special growth of the older civilization." In this connection he also discussed the occurrence of mental disease among Negroes. "In the negro race," he said, "the proportionate increase of insanity is far greater than in any other division of the population. From

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1870 to 1880 there was an increase in the census of the colored race of 34.85 per cent, while for the same period there was an increase of 285 per cent of the insane. This large multiplication has occurred since emancipation from slavery and the consequent changes in conditions and life. The causes are briefly told: enlarged freedom, too often ending in license; excessive use of stimulants; excitement of the emotions, already unduly developed; the unaccustomed strife for means of subsistence; educational strain and poverty. The total census of the other colored races is 172,000, with 105 insane, or one insane person to every 1,638. The small percentage of insane among the aborigines and Chinese is fully in accord with the observations of writers upon the causes productive of mental disease. There is much less of the refinement of civilization; less competition and struggle for place, power or wealth, and as a consequence, less tendency to mental deterioration." (57)

Andrews' discussion contains in essence the elements of the ecological study of mental disorder, which in our own time has been and is being vigorously pursued. His theory of a gradient from the frontier to the older settlements is derived from studies carried out by A. O. Wright in 1881 in Wisconsin. Presenting the results to the National Conference of Charities and Correction in 1884, Wright had said "Having made a census of the insane under public care in Wisconsin, the writer, on reducing the number by counties to the ratio to the population of the several counties, was astonished to find here a general law: That the older settled counties had the largest ratio of insane to the population, and that the ratio steadily decreased and reached the smallest ratio in the pioneer counties on the north. This seemed to show that a new country has a smaller proportion of insanity than an old country." (58) Wright believed that this law is due to the circumstance that new settlements are made by a selected population, mostly young and middle-aged people sound in mind and body. However, in the second generation, all the varied and complex causes that produce mental disorders are at work. At the same time, he also

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said: "It is often claimed that insanity is a disease of civilization, and that it is increasing because civilization is increasing. This I think to be a mistake." (59)

The differential approach to the study of mental illness was carried further in the 20th century along the lines previously indicated. In 1902, Daniel G. Brinton, professor of American archaeology and linguistics at the University of Pennsylvania, in a study of ethnic psychology, differentiated certain mental disorders as characteristic of the lowest stages of culture, while others belonged to civilized groups. "It is a popular error in scientific circles that diseases of the nervous system increase with civilization," he wrote. "The opposite is true. The lowest stages of culture are far more pathological than the higher, in this, as well as in most respects. True that certain neuroses belong to cultured peoples; but morbid emotional states are especially prevalent in lower conditions." (60) On the other hand, "Diseases of nervous and mental exhaustion belong exclusively among nations of advanced culture." (61)

Basing himself upon the studies of Wright, William A. White, in 1903, contended that "insanity increases in proportion as the stresses incident to the struggle for existence become mental stresses. . . ." (62) He illustrated this view by the statistics obtained from the newly-settled American states. As the crucial point he cited the mining states of the West, such as California, where the prevalence of mental diseases was higher. In this connection, it is worth noting a study of insanity and suicide published by Pilgrim in 1906. This author found that, for the years 1900–04 the suicide rate in 50 large American cities varied from 16 to 20 per 100,000. During the same period, in San Francisco suicides occurred at the rate of 50 to 72 per 100,000. San Francisco at that time differed from other cities through its excess of males, its high percentage of foreign-born, and its general social character which was still close to the frontier. (63).

During this period, a number of studies with similar approaches appeared in Great Britain. Among these may be

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mentioned those by J. F. Sutherland (1901), W. R. MacDermott (1908), and W. R. Dawson (1911). (64) Illustrative is MacDermott's article. He raised the pertinent question whether the variation in rates in different districts of Ireland does not undermine the commonly held opinion that insanity is inherited. He compared the rates for districts of Ireland in which the same families had resided for several generations. Thus he had a constant population factor, and was able to turn attention to other elements in the situation.

Contemporaneously, in Germany, Hellpach endeavored to link social class with certain forms of mental illness. (65) He differentiated the psyche of the proletariat and the bourgeoisie, and endeavored to show what forms of mental illness were to be observed in each social class. Thus, he considered certain neuroses as characteristic of the middle class and attributed them to changes in middle class culture. Hellpach laid special emphasis on materialism as a value which led to degenerative consequences, as well as on the insecurity in the bourgeoisie which derived from the militancy of the proletariat. One must recall that this was a period (1906) when the German Social Democratic Party had almost reached the apogee of its power, and even dreamed of achieving power on an elective basis. Again, it is evident how non-scientific elements intertwine with scientific problems. Yet, at the same time, such a study points to an aspect of the problem of stress and mental illness which apparently has not received as much attention as it deserves.

Conclusion

This brings us to a summation of the subject which has been presented in a broad overview. From the 18th century to the present there has existed the concept that social stress is in some way related to the causation of mental illness. The whole problem of civilization and insanity revolves around this concept. It is also clear that approaches to the elucidation of the problem have been colored by various non-scientific views and considerations. In short the analysis of this problem must be

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considered in terms of the sociology of knowledge as well as an aspect of history of psychiatry. Furthermore, let us remember that this applies as well to current work in this area. At the same time, within this social context there has gradually emerged a more sharply focused approach based on the ability to distinguish and to define apparently relevant variables. For example, it is certainly true that in broad outline cultures vary widely in their responses to such stressful conditions as epidemics, wars, technological and economic upheavals, and psychological deprivations. Whatever ways men use to defend themselves against stress will in general reflect the answers favored by their culture to certain human problems. (66) Cultural influences on psysiology can be demonstrated in several ways e.g. variations in nutrition and body manipulation, through attitudes toward injury and disease, and through the effects produced in the internal milieu of the organism by stress applied to it through cultural channels. Fischer and Agnew have suggested the concept of a hierarchy of stresses, and this may be illustrated by Groen's work with Jewish patients with ulcers before, during and after World War II. The patients lost their symptoms in concentration camps where the new stresses were objectively far greater, but had them back after their release and return to their more normal life. (67) What this means is that the development of further research requires the linking of epidemiological studies with studies of the physiological and psychological relations of the variables isolated by the former. Studies on one level are not enough. Research is needed on several levels and along various axes including that of time. The historian may be able to contribute perhaps in a small way by clarifying some of the contemporary issues in terms of their background and by suggestion of certain linkages that may not otherwise be apparent.

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